



INNOVATION AGENCY

Academic Health Science Network
for the North West Coast

MEDICATION POUCH DISPENSING IN INTERMEDIATE CARE

Summary

Use of a new dispensing system for inpatient medication for complex intermediate care patients has demonstrated a reduction in medication errors, reduced time by pharmacy staff to prepare medications for patients and reduced time for drug administration by nursing staff.

Salford Royal NHS Foundation Trust, part of the Northern Care Alliance (NCA), worked with PillTime, Medication Management Robotics and the Innovation Agency to implement a state-of-the-art digital robotic system which identifies, sorts and organises patient medication into easy-to-open pouches

The challenge

Demand on nurses in intermediate care units and care homes to administer drugs is increasing. Drug administration can take up to 90 minutes four or more times a day, and the complexity of prescriptions for patients with long term and complex conditions means that as many as 15 to 20 drugs can be administered at any one time.

Pharmacy dispensing can be repetitive and complex. Traditional compliance aids such as dosette boxes can take two pharmacy technicians up to 40 minutes per drug round per patient to produce and verify.



Demand and complexity can also lead to an increased risk of errors for both nursing staff administering drugs and the pharmacy team dispensing them.

Actions taken

Salford Royal worked with PillTime, Medication Management Robotics and the Innovation Agency to implement a pilot project. The project was set up to test whether, in a controlled environment, the trust could successfully use the PillTime unit dose dispensing model to package and distribute medication to patients within one intermediate care unit and two intermediate care homes. Roll-out across the three units was phased to embed learning from both dispensing and administration perspectives.



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Impact

During the three-month pilot project there was a substantial drop in the average pharmacy time required to prepare medications for patients.

A review of a sample of 12 patients on the intermediate care unit identified a drug administration time saving of up to 30 minutes on a typical full medication round.

Following successful roll-out on the intermediate care unit, Pendleton Suite, the service was rolled out to two intermediate care homes: Heartly Green and The Limes. The service was well received by nursing staff and demonstrated significant time savings.

Other benefits reported during the trial included:

- A reduction in the number of medicines-related incidents compared to the previous three months due to more accurate audit trails;
- Improved checking to ensure the correct tablet is dispensed (through the use of the automated Optical Checker);
- Reduction in wastage costs (pouches delivered for a seven-day period rather than 28 days as previously);
- Increased staff satisfaction with the drug administration process;
- Medication provided in a more timely manner;
- Reduction in the number of missed doses;
- Calmer atmosphere on the wards and reduction in stress when dealing with patients;
- More manageable drug trolleys.

Testimonials

Earl Thomas, nurse, The Limes, said:

"Since using the PillTime pouches we have found increased efficiencies within the administration processes. We no longer spend long lengths of time having to de-blister several different medications for patients, nor do we have to continually return to and from the clinic in search of medication."

Nadine Keats, nurse, Pendleton Suite, said:

"The pouches are extremely helpful and have saved me up to 40 minutes per round. Consequently, I've been able to engage more with patients. The PillTime pouches have made for efficient drug rounds, a more relaxed atmosphere on the ward and enabled tidier and more manageable trolleys."

Andy Beesley, Medication Management Robotics, said:

"We are delighted to be working with PillTime and Salford Royal on this ground-breaking initiative. At this time when the NHS and nurses in particular are under increasing pressure, we believe that new technologies like this will help the NHS to support Closed Loop Medication administration."

Leighton Humphreys, PillTime, said:

"Being part of this trial with Salford Royal has allowed us to demonstrate the significant benefits of PillTime's robotic drug pouching to both patient care and the NHS's cost-saving initiatives. Hearing the positive feedback from the nurses on the wards has been very rewarding for the team at PillTime."

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